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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,163	03/06/2001	Amit Mital	MS150965.1	3604

27195 7590 07/21/2006

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EXAMINER

JARRETT, SCOTT L

ART UNIT PAPER NUMBER

3623

DATE MAILED: 07/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/800,163

Applicant(s)

MITAL ET AL.

Examiner

Scott L. Jarrett

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-25,28-40,42-55,58,59,61 and 62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-25,28-40,42-55,58,59,61 and 62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 17, 2006 has been entered.

Applicant's amendment amended claims 1-2, 5-25, 28-40, 42-55, 58-59 and 61-62 and canceled claims 3-4, 26-27, 41, 56-57 and 60. Currently claims 1-2, 5-25, 28-40, 42-55, 58-59 and 61-62 are pending.

Response to Amendment

2. The Objection to the Title is withdrawn in response to Applicant's amendment to the Title.

The Objection to Claim 14 is withdrawn in response to the Applicant's amendment to Claim 14.

The Objection to Claim 60 is withdrawn in response to Applicant's cancellation of Claim 60.

The 35 U.S.C. 112 (2) rejection of Claims 40-52 and 60-62 in the previous office action is withdrawn in response to Applicant's amendment to Claims 40-52, 61-62 and the cancellation of Claim 60.

Response to Arguments

3. Applicant's arguments filed May 17, 2006 have been fully considered but they are not persuasive.

Specifically Applicant's argue that the prior art of record either singly or in combination fails to teach or suggest:

- *"a workflow component menu including a plurality of workflow components to create a business process that does not deadlock the schedule"* (Paragraph 3, Page 16; Last Paragraph 2, Page 20);

- that the rules ensure that deadlock cannot occur within the schedule (i.e. prohibiting the users from creating a schedule that will deadlock the schedule by checking the correctness of the schedule flow; Paragraph 3, Page 17; Paragraph 3, Page 18);

- *"a plurality of schedule tool components comprising an action component for defining actions in a business process schedule"* (Paragraph 3, Page 17); and

- *"utilizes a dataflow screen illustrating data flow between the implementation port and a technological component"* (Paragraph3, Page 18).

In response to Applicant's argument that the prior art of record fails to teach or suggest a *"a workflow component menu including a plurality of workflow components to create a business process"* the examiner respectfully disagrees.

Ott teaches a workflow component menu including a plurality of workflow components to create a business process (Section 5.2, Page 65; Bullets 1-5, Page 76; toolbar, Pages 124-125; Figures 5-5, 5-6, 702).

Teamware teach a workflow component menu including a plurality of workflow components to create a business process (Chapter 4 Using the Planner, Pages 117-124; Figures 2-3, 2-6, 2-10).

Okita et al. teach a workflow component menu including a plurality of workflow components to create a business process (transaction sets, libraries, groups, etc.; Column 2, Lines 8-9; Column 11, Lines 22-34; Column 16, Lines 33-46; Column 14, Lines 20-45; Column 16, Lines 33-46; Figures 9A, 9B).

ActionWorkflow teaches a workflow component menu including a plurality of workflow components to create a business process ("Tool bars", Page 2-3;"Toolbox", Page 2-10; Pages 3-7-3-8; Tables 2-1-2-5; Figure 2-1).

Visio teaches a workflow component menu including a plurality of workflow components to create a business process (reference A: Column 2, Paragraph 2, Page 77; Column 3, Paragraph 2, Page 80; Columns 1-3, Page 82; Figure 80; reference B: Column 2, Paragraphs 1-3, Page 46; "Smart drawings", Columns 1-2, Page 48; "Customization", Columns 1-2, Page 49).

In response to Applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., ensuring that a deadlock cannot occur within the schedule, prohibiting the users

from creating a schedule that will deadlock the schedule by checking the correctness of the schedule flow) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further it is noted that at least ActionWorkflow teaches utilizing rules to check/ensure the consistency of the business process workflows (Chapter 5; “When you use the Check Consistency command (from the Process menu), the Process Builder automatically checks your map for adherence to the Process Builder map rules.”, Page 5-1).

In response to Applicant’s argument that the prior art of record fails to teach or suggest “a *plurality of schedule tool components comprising an action component for defining actions in a business process schedule*” the examiner respectfully disagrees.

Ott teaches a plurality of schedule tool components comprising an action component for defining actions in a business process schedule (Section 5.3.2.1 Cluster, Pages 78-80; Menu Group/Ungroup, Page 117; Figures 5-6-5-9, 117).

Teamware teaches a plurality of schedule tool components comprising an action component for defining actions in a business process schedule (Chapter 4 Using the Planner, Pages 117-124; Figures 2-3, 2-6, 2-10).

Okita et al. teach a plurality of schedule tool components further comprising at least one action component for defining actions in a business process schedule and at least one action grouping component for grouping at least one action component

(transaction sets, libraries, groups, etc.; Column 2, Lines 8-9; Column 11, Lines 22-34; Column 16, Lines 33-46; Column 14, Lines 20-45; Column 16, Lines 33-46; Figures 9A, 9B).

ActionWorkflow teaches a plurality of schedule tool components comprising an action component for defining actions in a business process schedule (Pages 3-2, 4-52, 4-54).

Visio teaches a plurality of schedule tool components comprising an action component for defining actions in a business process schedule (reference A: Column 2, Paragraph 2, Page 77; Column 3, Paragraph 2, Page 80; Columns 1-3, Page 82; Figure 80; reference B: Column 2, Paragraphs 1-3, Page 46; "Smart drawings", Columns 1-2, Page 48; "Customization", Columns 1-2, Page 49).

In response to Applicant's argument that the prior art of record fails to teach or suggest utilizing "*a dataflow screen to illustrate the data flow between the implementation port and a technological component*" the examiner respectfully disagrees.

Ott teaches utilizing a dataflow screen to illustrate the data flow between the implementation port (interface(s), Application Program Interface, API, connection point, etc.) and a technological component (script, code, program, subsystem, object, etc.; Paragraph 2, Page 49; Figures 4-9, 6-5, 6-6, 6-8, 7-3).

Teamware teaches utilizing a dataflow screen to illustrate the data flow between the implementation port and a technological component (Figures 1.1, 2.5, 4.3).

Okita et al. teaches utilizing a dataflow screen to illustrate the data flow between the implementation port and a technological component (Column 6, Lines 43-57; Column 11, Lines 64-68; Column 12, Lines 1-10; Figure 8).

ActionWorkflow teaches utilizing a dataflow screen to illustrate the data flow between the implementation port and a technological component ("Working in the data tab", Pages 3-64-3-66; Figures 3-30, 3-33, 3-44, 5-3).

It is noted that the applicant did not challenge the Official Notice statements in the previous office action(s) therefore those statements as presented are herein after prior art. Specifically it has been established that it was old and well known in the art at the time of the invention:

- to automatically create a port (connection point, interface, etc.) on the edge of a component (transaction, node, element, node, object, etc.) thereby providing a convenient mechanism for accessing/modeling the port/component;
- to identify/flag a port associated with a deleted component such that a message/alert/reminder is provided to the user indicating that the flow (task, edge, link, etc.) assigned to the port needs to be re-assigned and/or re-evaluated to ensure the business process has no dangling (unassigned) flows;
- that a decision component must have at least one rule as a precondition for being considered a decision component for without at least one rule there would be no logic (rule) upon which to make a decision; and

- to make at least one of the decision component rules non-editable thereby ensuring that every decision component has at least one rule.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 53-55, 58-59 and 61-62 are rejected under 35 U.S.C. 101 because directed towards non-statutory subject matter.

Regarding Claims 53-55, 58-59 and 61-62, Claims 53-55, 58-59 and 61-62 recite a “system” that facilitates modeling of a business processes however the “system” as claimed merely represents a collection of software components (code, modules, etc.) wherein there is no indication that the system, as claimed, comprises any elements other than software/code (e.g. a computer processor having memory for executing the code is not claimed) nor is the software is recorded on computer-readable medium and/or capable of execution by a computer, therefore making the recited system merely software per se.

Examiner suggests that the applicant incorporate into independent Claim 53 that the proposed system includes one or more elements, such as computer hardware, and/or that the proposed software is recorded on computer-readable medium and capable of execution by a computer to overcome this rejection.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-2, 5-25, 28-40, 42-55, 58-59 and 61-62 are rejected under 35

U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claims 1-2 and 5-21, Claim 1-2 and 5-21 recite "A computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface..." wherein it is not clear if the Applicant's are claiming a graphical user interface program/software embodied on a computer readable-medium and executable by a computer *or* software *for utilizing* a workflow scheduler graphical user interface program (i.e. claims are directed to a software program that utilizes/employs another software program, namely the workflow graphical scheduler user interface program, to perform one or more actions/steps).

For the purposes of examination examiner interpreted the claims to read "A workflow scheduler graphical user interface program having computer executable instructions stored on a computer readable medium, the workflow scheduler graphical user interface program comprising:..."

Further Regarding Claims 1-2 and 5-21, Claim 1-2 and 5-21 recite "a first screen area employed to create a graphical representation..." and "a second screen area...."

(emphasis added) wherein the claims attribute the act of creating the graphical representation of the business process workflow and binding the graphical representation to at least one technological component to an *area* of a graphical user interface program wherein such acts are commonly performed by users and/or underlying software program (i.e. such actions are not typically attributable to an *area* of a GUI).

Examiner requests clarification as to who and/or what entities employ the graphical user interface program to create and bind the graphical representation of the business process workflow, specifically does the underlying software program/instructions, the user, the graphical user interface program and/or a combination of entities create and bind the graphical representation of a business process workflow.

Applicant's may overcome this rejection by amending the claims to recite "code for providing a first screen area of a graphical user interface program employed by a user to create a graphical representation of a business workflow" or similar language which clearly and distinctly defines the meets and bounds of the claimed invention.

For the purposes of examination examiner interpreted the claims to read that any of the following entities performs the act of creating and/or binding of the graphical representation of the business process workflow: the user, the software/system, the graphical user interface or any combination of the entities.

Regarding Claims 22-25 and 28-38, Claims 22-25 and 28-38 recite “A computer-readable medium having computer executable instructions for employing a business process scheduling program...” wherein it is not clear if the Applicant’s are claiming a business process scheduling program/software embodied on a computer readable-medium and executable by a computer *or* software instructions *for employing* a business process scheduling program (i.e. claims are directed to a software program that utilizes/employs another software program, namely the business process scheduling program, to perform one or more actions/steps).

For the purposes of examination examiner interpreted the claims to read
“A business process scheduling program having computer executable instructions stored on a computer readable medium, the business process scheduling program comprising:...”

Regarding Claims 39-40 and 42-52, Claim 39 recites “having a first *region* employed to create a representation of a business process workflow and a second screen *region* employed to bind....” (emphasis added) wherein the claims attribute the act of creating a representation of the business process workflow and binding the representation to at least one technological component to an *region of a screen* wherein such acts are commonly performed by users and/or an underlying software program (i.e. such actions are not typically attributable to an *region of a screen*).

Examiner requests clarification as to who and/or what entities employ the computer readable medium having computer executable instructions to create and bind

a representation of the business process workflow, specifically does the underlying software program/instructions, the user, the graphical user interface program or a combination of entities create and bind the representation of a business process workflow.

Applicant's may overcome this rejection by amending the claims to recite "code for providing a first screen region that is employed by a user to create a representation of a business workflow and providing a second screen region that is employed by a user to bind the business process workflow representation to a representation of at least one technological component" or similar language which clearly and distinctly defines the meets and bounds of the claimed invention.

For the purposes of examination examiner interpreted the claims to read that any of the following entities performs the act of creating and binding of the representation of the business process workflow: the user, the software/system, the graphical user interface or any combination of the entities.

Regarding Claims 53-55, 58-58 and 61-62 the disclosure does not clearly define the phrase "system." A system as claimed could contain a plurality of elements and without further definition of the system elements the phrase as claimed vague and indefinite.

For the purposes of examination examiner interpreted the phrase system to include computer hardware for executing the claimed software components.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-2, 5, 8-19 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Ott, Marcus, Conceptual Design and Implementation of a Graphical Workflow-Modeling Editing in the Context of Distributed Groupware-Databases (1994).

Regarding Claim 1 Ott teaches a computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program comprising:

- a first screen (window, panel, pane, box, area, region, workspace, “drawing pad”, etc.) employed to create a graphical (visual, symbolic, pictogram, iconic, etc.) representation (model) of a business workflow process (Paragraphs 2-3, Page 62; Section 5.2 Requirements for a graphical workflow modeling editor, Pages 65-66; Section 5.3.1 Graphical Modeling Notation, Pages 73-74, 128; Figures 4-9, 5-5, 5-6, 5-7, 128); and
- a second screen employed to bind (link, couple, associate, relate, tie, group, map, etc.) the graphical representation of a business workflow process to at least one technological component (code, system, subsystem, routine, object, sub-workflow, building block item, hardware, software, process, sub-process, task, activity, script,

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agent, resource, etc.; e.g. OLE/DDE, hyperlinks, etc.; Paragraph 2, Page 49; Section 4.3.2 Link, Pages 52-53; Section 6.1 WOMED's visual process language, Pages 86-87; Figures 4-9, 507, 7-2).

Ott further teaches that the computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program further comprises:

- a workflow component (item, icon, symbol, object, list, library, script, element, template, etc.) menu (tool box, list, toolbar, "smart icons", etc.) including a plurality of workflow components (nodes, roles, tasks, sub-workflows, work items, elements, etc.) employed to create a business workflow process in the (first) screen area (Section 5.2, Page 65; Bullets 1-5, Page 76; toolbar, Pages 124-125; Figures 5-5, 5-6, 702); and
- wherein the plurality of workflow components comprises at least one action component for defining actions (tasks, activities, elements, etc.) in a business workflow process and at least one action grouping (clustering, aggregating) component for grouping the at least one action component (Section 5.3.2.1 Cluster, Pages 78-80; Menu Group/Ungroup, Page 117; Figures 5-6-5-9, 117).

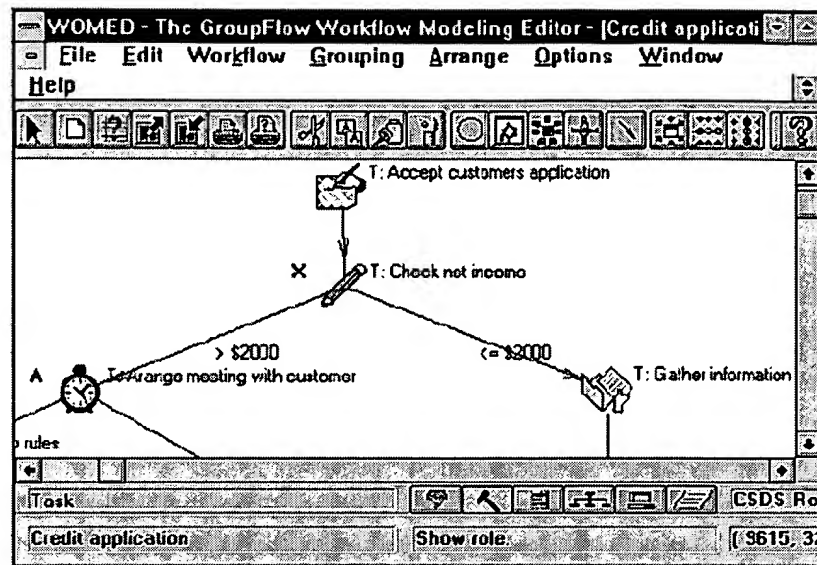


Figure 4-9 [Representation of a X-Or split in the graphical modelling editor]

The screenshot shows the 'Object Properties' dialog box. It is divided into two main sections: 'Forms' and 'Roles'. The 'Forms' section contains a list of forms: 'Purchase order form' (highlighted), 'Checkup Form', 'Credit application', 'Customer's data', 'Purchase request form', 'Purchase requisition form', 'Scanner', 'Timetable', and 'Workflow Process'. The 'Roles' section is further divided into 'Readers' and 'Non Readers'. The 'Readers' list includes 'Reader', 'Signer', and 'Supervisor'. The 'Non Readers' list includes 'Assistant' and 'Corrector'. Below these lists, there is a 'Sections' section with two columns: 'Read only' and 'Editable'. The 'Read only' column contains 'Information' and 'Status & Tracking'. The 'Editable' column contains 'Amount' and 'Item(s) description'. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

Forms	
Purchase order form	
Checkup Form	
Credit application	
Customer's data	
Purchase request form	
Purchase requisition form	
Scanner	
Timetable	
Workflow Process	

Roles	
Readers	Non Readers
Reader	Assistant
Signer	Corrector
Supervisor	

Sections	
Read only	Editable
Information	Amount
Status & Tracking	Item(s) description

Figure 4-11 [Picking objects and sections with WOMED]

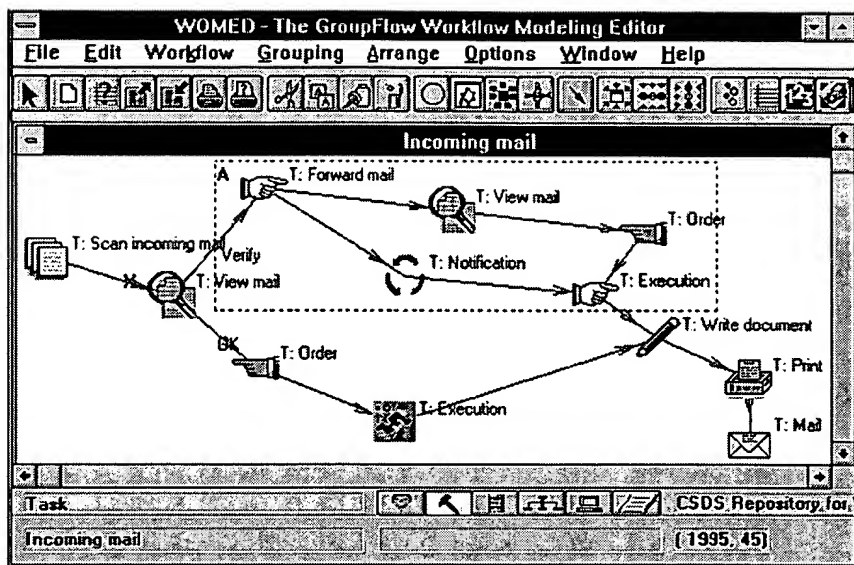


Figure 5-7 [Grouping tasks]

Regarding Claim 2 Ott teaches a computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program further comprising a separator bar (line, area, region, box, panel, window, etc.) separating the first screen area from the second screen area (Figure 7-2).

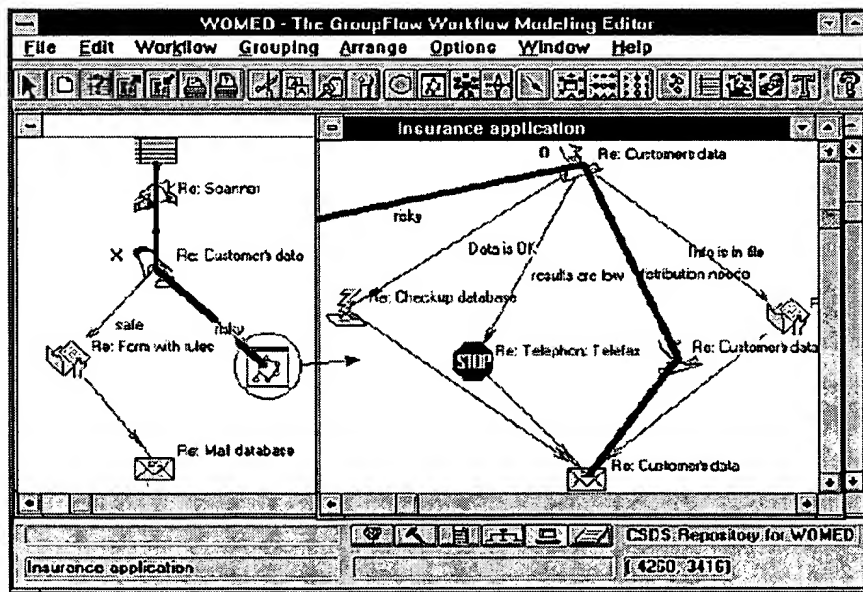


Figure 7-2 [Flat Insurance Application workflow without layered clustering]

Regarding Claim 5 Ott teaches a computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program wherein the at least one action component grouping component being a role component (Bullets 2, 4, Page 28; Section 4.4.3 Role, Pages 57-59 Section 5.2.3 Team tasks, Pages 70-71; Figure 4-13).

Regarding Claim 8 Ott teaches a computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program wherein the plurality of workflow components further comprises at least one decision component for providing decision control flow to the business workflow process ("parallel route", Pages 44-45; Last Paragraph, Page 51; "control flow", Pages 75-77; Figures 4-6, 4-7, 4-9, 4-10, 5-5).

Regarding Claim 9 Ott teaches that the computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program further comprises an editable decision component property screen (window, pane, panel, box, menu, dialog, etc.) employed to add and delete rules (expressions, formulas, etc.) to the decision component (node definition/specification; "Basic object routing rules", "Business rules", Page 46; Figures 4-9, 6-8).

Regarding Claim 10 Ott teaches that the computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user

interface program further comprises an editable rule property screen employed to define rules added to the decision component ("parallel route", Pages 44-45; Last Paragraph, Page 51; "control flow", Pages 75-77; Last Paragraph, Page 87; Figures 4-6, 4-7, 4-9, 4-10, 5-5).

Regarding Claim 11 Ott teaches a computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program wherein the plurality of workflow components further comprise at least one of the following components: action, an action group, a branching, a joining or a decision ("serial route", "parallel route", Pages 44-45; Last Paragraph, Page 51; "control flow", Pages 75-77; Figures 4-6, 4-7, 4-9, 4-10, 5-5).

Regarding Claim 12 Ott teaches that the computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program further comprises a binding (linking, coupling, associating, relating, mapping, tying, etc.) component menu (list, library, tool box, tool bar, etc.) including a plurality of technological components employed to bind the graphical representation of the business workflow process to at least one of the plurality of technological components in the (second) screen area (region, panel, pane, box, etc.; edges, interface node, ingoing/outgoing connections; Paragraph 1, Page 78; Last Paragraph, Page 88; Paragraph 2, Page 105; Pages 124-125; Figures 5-5, 5-6, 5-8, 5-9, 6-1).

Regarding Claim 13 Ott teaches that the computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program further comprises a message (arguments, conditions, constraints, text, etc.) editor for each of the plurality of technological components (dialog, edge attributes/conditions/arguments, node/edge specification; Last Paragraph, Page 87; Last Paragraph, Page 131; Figures 129, 130A-130C).

Regarding Claim 14 Ott teaches a computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program wherein the plurality of technological components further comprises at least one of the following components: COM, script, message queue or schedule (time factor; Section 4.2.4, Pages 47-48).

Regarding Claim 15 Ott teaches that the computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program further comprises at least one implementation port (interface, connection point, connector, input, application program interface (API), etc.) that couples (links, binds, ties, relates, associates, relates, connects, etc.) at least one workflow component to the at least one technological component (e.g. DDE/OLE; Paragraph 1, Page 78; Last Paragraph, Page 88; Paragraph 2, Page 105; Pages 124-125; Figures 5-5, 5-6, 5-8, 5-9, 6-1).

Regarding Claim 16 Ott teaches that the computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program further comprises a data (object, information, etc.) flow screen that illustrates (presents, graphs, draws, forms, provides, displays, etc.) data flow between the at least one implementation port (interface, API, connector, connection point, link, edge, etc.) and the at least one technological component (e.g. object flows wherein objects comprise data/attributes and methods (interfaces), Paragraph 2, Page 49; Figures 4-9, 6-5, 6-6, 6-8, 7-3).

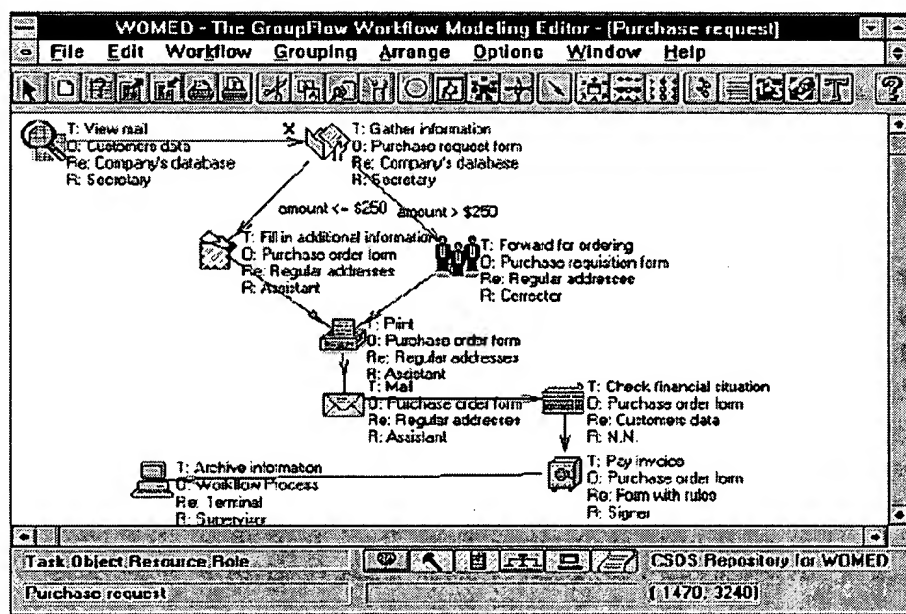


Figure 6-8 [Purchase request, final stage]

Regarding Claim 17 Ott teaches that the computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program wherein the at least one implementation port being provided by dragging the at least one technological component into the second screen area (region,

window, box, pane, panel, etc.) using a user selection device (edge; inserting nodes and connectors, Page 86; Figure 6-1).

Regarding Claim 18 Ott teaches that the computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program further comprises an editable port references message properties screen employed to reorder implementation ports (modifying order constraints, Last Paragraph, Page 87).

Regarding Claim 19 Ott teaches that the computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program wherein the editable port references message properties screen is further employed to launch an editable port properties screen, the editable port properties screen being employed to at least one of add, delete or edit port messages or arguments (conditions, constraints, routing rules, edge conditions/arguments/messages/attributes, etc.; Section 5.3.1, First Paragraph, Page 73; Paragraph 3, Page 75; node/task specification, Pages 129-130; Figures 5-4, 129-130C).

Regarding Claim 21 Ott teaches that the computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program being employed to convert (transform, translate, compile, create,

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generate, etc.) the graphical representation of the business workflow process into executable code (executing, implementing, running the workflow/business process; GroupFlow workflow engine; Section 5.1.1 Basic use of GroupFlow and activation of workflow Instances, Pages 63-64; Paragraph 6, Page 104; Figures 6-8, 7-2).

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10. Claims 22–31, 33-35 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Okita et al., U.S. Patent No. 6,225,998.

Regarding Claim 22 Okita et al. teach a computer-readable medium having computer executable instructions for employing a business process scheduling program comprising:

- a plurality of schedule tool components employed to create a representation of a business process schedule (flow, steps, tasks, activities, timing, transaction flow, workflow, etc.) according to a set of predefined rules (libraries, routing rules, display properties; Column 2, Lines 1-17; Column 3, Lines 13-33; Column 5, Lines 43-51; Column 6, Lines 43-57; Figures 4-7, 13-16; Figure 2, Element 200; Figure 3, Element 302);
- a conversion component employed to convert the schedule (flow, representation, process, etc.) to executable code (CCT Compiler, Column 5, Lines 1-26 and 50-57; Figure 2 Element 204; Figure 3, Element 306);
- wherein the plurality of schedule tool components further comprise at least one action component for defining actions in a business process schedule and at least one action grouping component for grouping at least one action component (transaction sets, libraries, groups, etc.; Column 2, Lines 8-9; Column 11, Lines 22-34; Column 16, Lines 33-46); and
- wherein the action components grouped by the at least one action grouping component are selectable between an associated state and an unassociated state (i.e.

group, ungroup, select, deselect; Column 14, Lines 20-45; Column 16, Lines 33-46; Figures 9A, 9B).

Regarding Claim 23 Okita et al. teach a computer-readable medium having computer executable instructions for employing a business process scheduling program further comprising at least one binding (coupling, linking, associating, mapping, relating, etc.) tool component employed to bind the representation of the business process schedule to at least one technological component (connectors, connection objections, links; Column 6, Lines 43-57; Column 11, Lines 64-68; Column 12, Lines 1-10; Figure 8).

Regarding Claim 24 Okita et al. teach a computer-readable medium having computer executable instructions for employing a business process scheduling program further comprising an input screen (window, pane, panel, region, area, interface, form, box, etc.) for inputting interfaces and methods of the at least one technological component (arguments, conditions, constraints, port, API, connection point; Column 2, Lines 1-17; Column 3, Lines 13-33; Column 5, Lines 43-51; Column 6, Lines 43-57; Figures 4-7, 13-16; Figure 2, Element 200; Figure 3, Element 302).

Regarding Claim 25 Okita et al. teach a computer-readable medium having computer executable instructions for employing a business process scheduling program further comprising a data flow connection sheet screen employed to view data flow

between the business process schedule and the at least one technological component (Column 10, Lines 1-31; Figure 15).

Regarding Claim 28 Okita et al. teach a computer-readable medium having computer executable instructions for employing a business process scheduling program wherein a control flow flowing to an action component grouped by an action grouping component having an associated state will automatically connect to a connection point (input, connector, interface, port, etc.) on the action group component (Column 8, Lines 7-23; Column 11, Lines 33-41; Column 12, Lines 1-10; Column 15, Lines 33-46; Column 16, Lines 10-32).

Regarding Claim 29 Okita et al. teach a computer-readable medium having computer executable instructions for employing a business process scheduling program wherein a control flow flowing to an action component grouped by an action grouping component having a non-associated state will allow a direct connection to a connection point on the action component (Column 6, Lines 54-57; Column 7, Lines 23-32; Column 8, Lines 12-23; Column 11, Lines 10-21; Column 12, Lines 25-36; Column 16, Lines 1-45; Figures 5, 7).

Regarding Claim 30 Okita et al. teach a computer-readable medium having computer executable instructions for employing a business process scheduling program wherein an action grouping component having a non-associated state will not have a

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control handle (name, label, port, input, connector, connection point, etc.) for directing control flow and an action component having an associated state will have a control handle for directing control flow (Column 9, Lines 40-64; Column 11, Lines 64-68; Column 12, Lines 1-10; Figure 8).

Regarding Claim 31 Okita et al. teach a computer-readable medium having computer executable instructions for employing a business process scheduling program wherein a connection between a first action grouping component having at least one action associated with the first action grouping component and a second action grouping component having at least one action associated with the second action grouping component will automatically generate a first grouping component port (connection point, input, port, link, interface, etc.) and a second grouping component port on the second action grouping component on the second action grouping component and a communicates a message coupling (linking, binding, relation, mapping, connecting, etc.) the first grouping component port to the second grouping component port (Column 7, Lines 23-32; Column 9, Lines 35-65; Column 11, Lines 64-68; Column 12, Lines 1-10; Column 16, Lines 1-45; Figures 5, 7-8).

Regarding Claim 33 teach a computer-readable medium having computer executable instructions for employing a business process scheduling program wherein a control flow flowing from an action component grouped by an action grouping component having an associated state to an implementation port will automatically

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generating a grouping component port on an edge of an action grouping component (Column 15, Lines 33-65; Column 16, Lines 1-45).

Regarding Claim 34 Okita et al. teach a computer-readable medium having computer executable instructions for employing a business process scheduling program wherein the at least one action grouping component allowing only a single control flow to flow into at least one action component (Column 7, Lines 1-32; Column 11, Lines 33-40; Figure 5, Elements 504, 504, 508, 510; Figures 6-7).

Regarding Claim 35 Okita et al. teach a computer-readable medium having computer executable instructions for employing a business process scheduling program wherein the at least one action grouping component being a transaction component and further including at least one of a catch code and a compensation code related to the transaction component (error/exception handling; Figure 5, Element 504).

Regarding Claim 38 Okita et al. teach a computer-readable medium having computer executable instructions for employing a business process scheduling program wherein the at least one decision component allowing for the addition of other rules (Column 10, Lines 55-68; Column 12, Lines 11-37; Figures 6, 12-14).

11. Claims 53-55 and 58 are rejected under 35 U.S.C. 102(b) as being anticipated by Action Technologies ActionWorkflow system and method (product) as evidenced at least by ActionWorkflow Enterprise Series 3.0 Process Builder User's Guide (1996).

Regarding Claim 53 ActionWorkflow teaches a system that facilitates the modeling of business processes that are representable at a transaction level and action level, the system comprising:

- a graphical user interface (process builder, process map; Pages 2-1 – 2-3; Tables 2-1-2-5; Figures 2-1, 3-2, 3-30, 3-40); and
- a plurality of modeling components accessible through the graphical user interface and employed to create a graphical representation of a business process;
- binding (coupling, linking, associating, relating, integration, mapping, etc.) of the business process to at least one technological component (Pages 2-1 – 2-3, 3-2, 4-54; Tables 2-1-2-5; Figures 2-1, 3-2, 3-30, 3-40);
- at least one implementation port (API, connection point, connector, method call, message, protocol, etc.) coupling (linking, associating, relating, integrating, etc.) at least one component of the graphical representation of the business process to the at least one technological component (process components, protocol, method; Pages 3-68, 3-71, 4-58, 5-19; Tables 2-1-2-5; Figures 3-46, 3-51); and
- a data flow screen (window, area, box, pane, panel, etc.) illustrating (drawing, displaying, showing, providing, etc.) data flow (messages, information, method calls, etc.) between the at least one implementation port (connection point, connector, link,

method, API, etc.) and the at least technological component (i.e. process map, data tab;
“Working in the data tab”, Pages 3-64-3-66; Figures 3-30, 3-33, 3-44, 5-3).

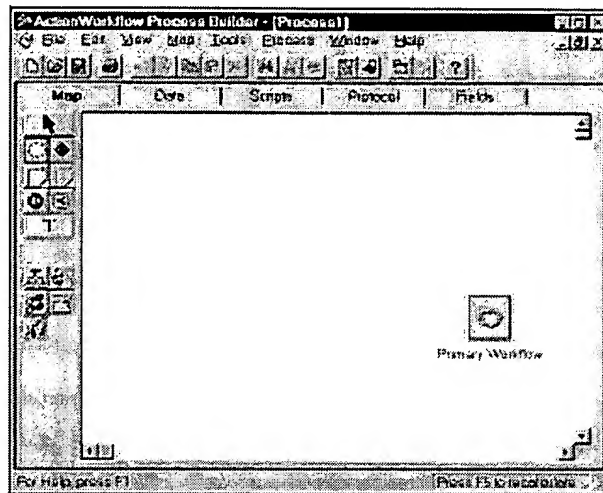


Figure 2-1 Process Builder window

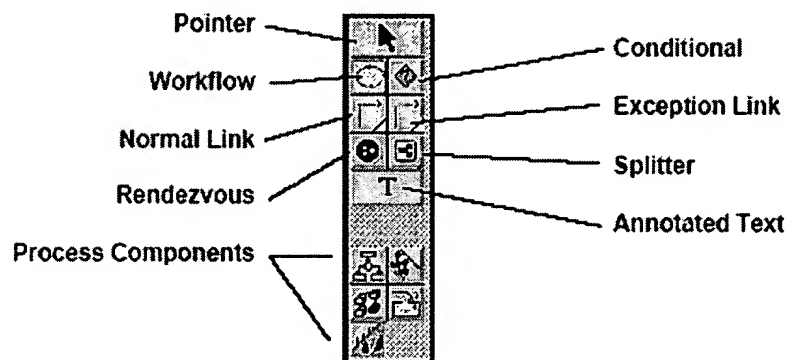


Figure 2-2 The Process Builder toolbox

See also the section on Tools menu commands beginning on page 4-51.

Regarding Claim 54 ActionWorkflow teaches a system that facilitates the modeling of business processes wherein at least a portion of the plurality of modeling components residing on a workflow component menu (toolbar, menu, tabs, toolbox, etc.) are employed to create the graphical representation of a business workflow process in a (first) screen area (window, box, panel, panel, portion of the

screen/window/system, etc.; "Tool bars", Page 2-3;"Toolbox", Page 2-10; Pages 3-7-3-8; Tables 2-1-2-5; Figure 2-1).

Regarding Claim 55 ActionWorkflow teaches a system that facilitates the modeling of business processes wherein at least a portion of the plurality of modeling components residing on a binding (coupling, linking, associating, integrating, etc.; e.g. exception link, condition link, rendezvous, splitter, etc.) component menu (tool bar, tool box, list, tabs, etc.) are employed to create a binding (association, link, mapping, connection, etc.) to the graphical representation of the business workflow process in a (second) screen area (region, pane, window, panel, section, box, etc.; "Tool bars", Page 2-3;"Toolbox", Page 2-10; "To draw this map", Steps 1-11, Page 3-9; "Creating and defining workflows", Page 3-10).

Regarding Claim 58 ActionWorkflow teaches a system that facilitates the modeling of business processes further comprising converting (compiling, transforming, translating, interpreting, etc.) the graphical representation of the business process workflow into executable code (compiling, executing, implementing, activating workflow, generate workflow; "Producing the .AWO file", Page 3-91; "Generate", Page 4-80).

12. Claims 59 and 61-62 are rejected under 35 U.S.C. 102(b) as being anticipated by Ott, Marcus, Conceptual Design and Implementation of a Graphical Workflow-Modeling Editing in the Context of Distributed Groupware-Databases (1994).

Regarding Claim 59 Ott teaches a graphical user interface program stored on a computer readable medium comprising executable instructions, the graphical user interface program comprising (Table 4-1; Figures 4-3, 4-4, 4-6, 4-7, 4-9, 4-13, 5-1, 5-4, 5-5):

- means for allowing a user to create a graphical representation of a business process (Paragraphs 2-3, Page 62; Section 5.2 Requirements for a graphical workflow modeling editor, Pages 65-66; Section 5.3.1 Graphical Modeling Notation, Pages 73-74; Figures 4-9, 5-5, 5-6, 5-7);

- means for allowing a user to create a binding (linking, associating, tying, integrating, relating, mapping, coupling, etc.) of the graphical representation for the business process to at least one technological component (hardware, software, process, sub-process, task, activity, object, code, script, agent, resource, etc.; Section 4.3.2 Link, Pages 52-53; Section 6.1 WOMED's visual process language, Pages 86-87);

- means for allowing a user to create a workflow using a workflow component menu including a plurality of workflow components employed to create the business workflow process (Section 5.2, Page 65; Bullets 1-5, Page 76; toolbar, Pages 124-125; Figures 5-5, 5-6, 702), the plurality of workflow components comprising at least one action component for defining actions in a business workflow process and at least one

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grouping component for grouping the at least one action component (Section 5.3.2.1 Cluster, Pages 78-80; Menu Group/Ungroup, Page 117; Figures 5-6-5-9, 117).

Regarding Claim 61 Ott teaches a graphical user interface program further comprising a means for viewing data flow (information, object, attribute, etc.) between the means for coupling (linking, mapping, connecting, etc.) and the at least one technological component (Figures 4-9, 5-7, 5-8, 5-9, 6-8, 7-2).

Regarding Claim 62 Ott teaches a graphical user interface program further comprising a means for converting the graphical representation of the business process into executable code (i.e. executing, implementing, running the workflow/business process; GroupFlow workflow engine; Section 5.1.1 Basic use of GroupFlow and activation of workflow Instances, Pages 63-64; Figures 6-8, 7-2).

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

14. Claims 39-47 and 49 are rejected under 35 U.S.C. 102(a) as being anticipated by TeamWARE Group's Teamware Flow as evidenced by at least the following:
Teamware Flow 3.1 User's Guide (2000).

Regarding Claim 39 Teamware teaches a computer-readable medium having computer executable instructions for performing the steps comprising ("Using the Planner", Pages 58-59; Chapter 4 Using the Planner, Pages 117-121; Figures 1-1, 1-3, 2-2):

- displaying a screen having a first region (screen, area, window, panel, pane, etc.) employed to create a representation of a business workflow process (Figures 1-1, 1-3, 1-6, 2-2); and
- a second region employed to bind (link, couple, tie, associate, integrate, relate, map, connect, etc.) the representation of a business workflow process to a representation of at least one technological component (Figures 1-1, 1-3, 2-2).

Teamware further teaches a computer-readable medium having computer executable instructions further comprising displaying a workflow component menu (tool box, toolbar, list, repository, etc.) including a plurality of workflow components (nodes, scripts, forms, users/roles, arrows, links, subplans, templates, etc.) employed to create

a business workflow process (Chapter 4 Using the Planner, Pages 117-124; Figures 2-3, 2-6, 2-10).

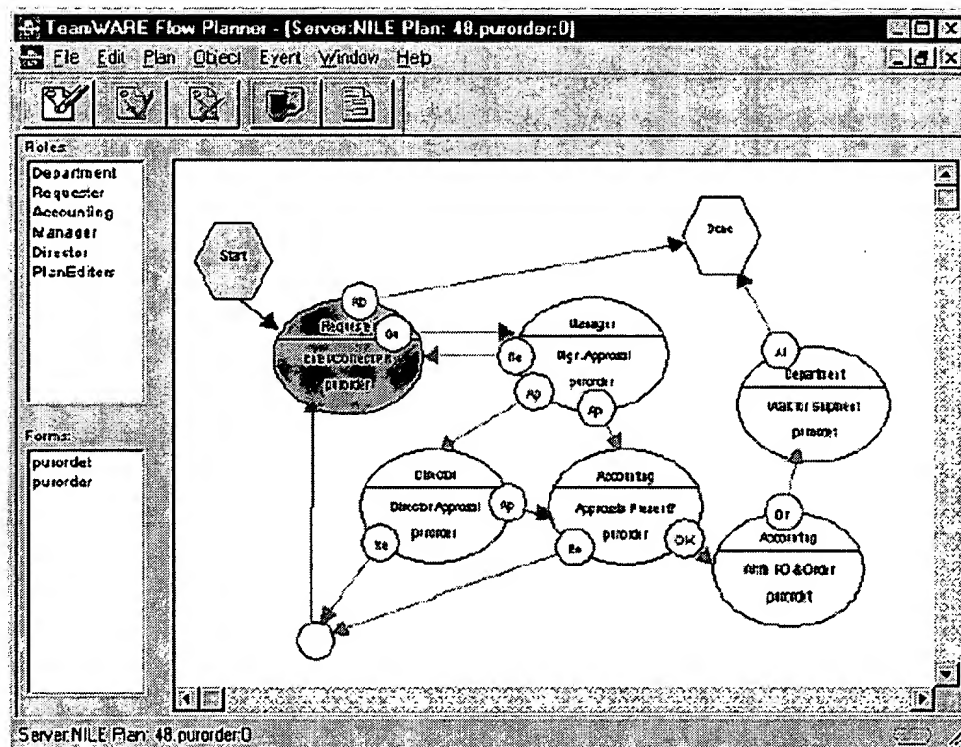


Figure 1-1: Example of a plan defining a workflow

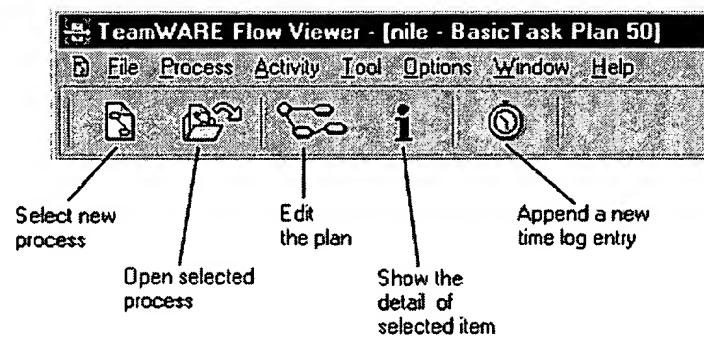


Figure 2-3: Viewer toolbar

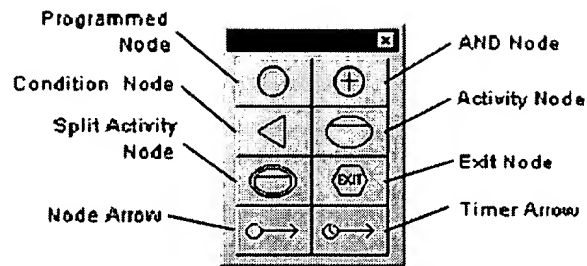


Figure 2-6: Planner toolbox

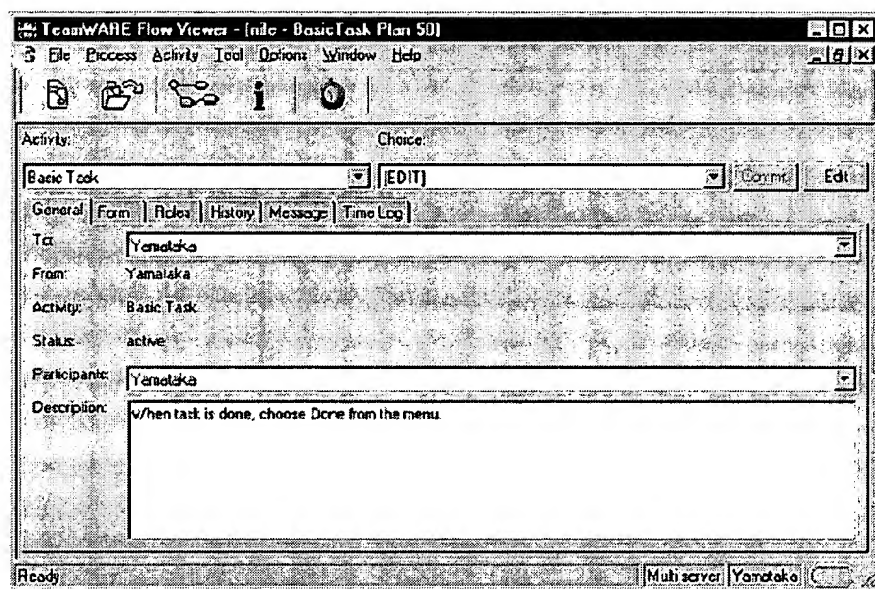


Figure 3-11: Process window

Regarding Claim 40 Teamware teaches that the computer-readable medium having computer executable instructions further comprises displaying a separator bar (line, box, window outline/frame, frame, etc.) between the first screen area and the second screen area (Figures 1-1, 1-3, 2-2).

Regarding Claim 42 Teamware teaches a computer-readable medium having computer executable instructions further comprising retrieving and inserting an image

(icon, graphic, component, object, picture, symbol, etc.) into the first screen area of a selection one of the plurality of workflow components in response to a user selecting the component and dragging the component into the first screen area using a user selection device (Nodes, Pages 25-26; Chapter 4 Using the Planner, Pages 117-118; "Creating a node", Page 139; "Positioning Control Objects", Page 176).

Regarding Claim 43 Teamware teaches a computer-readable medium having computer executable instructions further comprising displaying an editable transaction (node, activity node, task, etc.) property screen (window, box, pop-up, form, etc.; Figures 4-5, 4-11, 4-12) employed to relate catch and compensation code (conditional logic, script, error/exception handling, etc.; e.g. condition, and, or, split activity nodes) to a transaction component (workflow component, node, etc.) in response to a user selecting a transaction component residing in the (first) screen area using a user selection device (body/epilog script, Page 132; Activity/Condition/Programmed Nodes, Pages 133-138; "catch", Pages 255, 260; "error", Pages 261-262; Figures 4-13).

Regarding Claim 44 Teamware teaches a computer-readable medium having computer executable instructions further comprising an editable decision component property screen employed to add and delete rules (scripts, logic, conditions, etc.) to the decision component in response to a user selecting a decision component residing in the (first) screen area using a user selection device (priority rules, Page 105-108; activity/condition/programmed nodes, Pages 133-138; Figure 3-14).

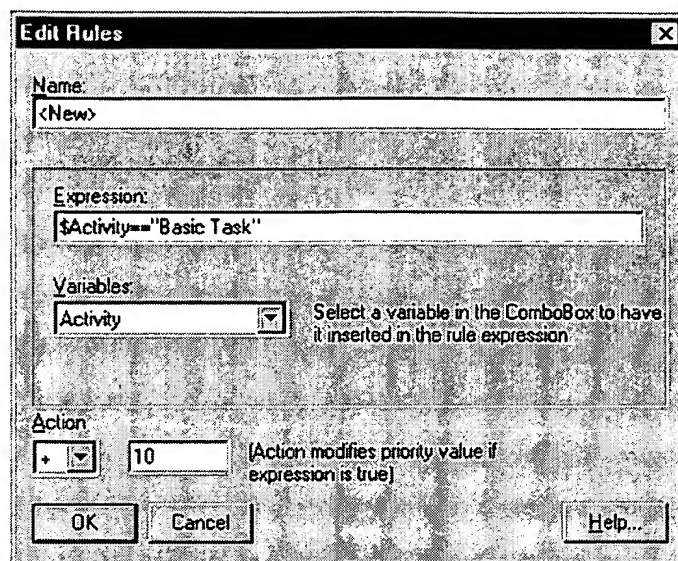


Figure 3-14: Edit Rule window

Regarding Claim 45 Teamware teaches a computer-readable medium having computer executable instructions further comprising an editable rule property screen employed to define the rules added to the decision component in response to a user selecting a button (link, menu, action, item, toolbar, icon, graphic, etc.) on the editable decision component property screen using a user selection device (priority rules, Page 105-108; activity/condition/programmed nodes, Pages 133-138; Figure 3-14).

Regarding Claim 46 Teamware teaches a computer-readable medium having computer executable instructions further comprising displaying a component menu (list, toolbox, bar, directory, etc.) including a plurality of technological components (e.g. nodes) employed to bind (link, associate, relate, map, couple, integrate, etc.) the graphical representation of the business workflow process to at least one of the plurality of technological components (nodes, scripts, servers, agents, roles, etc.; "Using the Planner", Pages 58-59; Chapter 4 Using the Planner 117-121; Figures 1-1, 1-3, 2-2).

Regarding Claim 47 Teamware teaches a computer-readable medium having computer executable instructions further comprising displaying a message editor in response to a user selecting one of the plurality of technological components and dragging the component into the (second) screen area using a user selection device (node/process properties window message tab; Pages 97-98; Figure 3-11).

Regarding Claim 49 Teamware teaches a computer-readable medium having computer executable instructions further comprising retrieving and displaying an implementation port (connection point, link, API, interface, etc.) image (graphic, icon, picture, indicia, etc.) employed to bind (link, map, couple, connect, associate, arrows, choices, etc.) a technological component to a component in a business workflow process in response to a user selecting one of the plurality of technology components and dragging the component into the second screen are using a user selection device (Last Paragraph, Page 27; Steps 1-5, Page 61; Figures 1-3, 1-9).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ott, Marcus, Conceptual Design and Implementation of a Graphical Workflow-Modeling Editing in the Context of Distributed Groupware-Databases (1994) as applied to claim 1 above.

Regarding Claims 6-7 Ott teaches a computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program wherein the at least one action component is a grouping component, as discussed above.

Ott teaches a computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program further comprising an editable transaction property screen (window, box, area, region, pane, panel, etc.) and exception/error handling code (exception handling, error handling, backtracking, etc.; Last Bullet, Page 29; First Bullet Page 30).

Ott does not expressly teach that at least one of the action component grouping component is a transaction component as claimed.

Official notice is taken that it is old and well known to group business workflow processes components into "transactions" (groups of related and/or dependent actions/activities) for the purposes of managing (treating) the group as if it is a single action/activity (i.e. well known transaction management).

It would have been obvious to one skilled in the art at the time of the invention that the system and method for utilizing a workflow scheduler graphical user interface program wherein the at least one action component is a grouping component as taught by Ott would have benefited from enabling users to select and group transaction components in view of the teachings of Official Notice; the resultant system/method thereby enabling users to manage the group as if it is a single action/activity.

Further it is noted that while Ott does not expressly teach that at least one of the action component grouping component is a transaction component, these differences are only found in the non-functional descriptive material and are not functionally involved in the steps recited nor do they alter the recited structural elements. The recited method steps would be performed the same regardless of the specific label applied to the component group. Further, the structural elements remain the same regardless of the specific label applied to the component group. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of

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patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP § 2106.

17. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ott, Marcus, Conceptual Design and Implementation of a Graphical Workflow-Modeling Editing in the Context of Distributed Groupware-Databases (1994) as applied to claims 1-19 and 21 above, and further in view of Visio as evidenced by at least the following:

I. Doherty, Paul, Visio Reshaping Company Thinking (1999), herein after reference A; and

II. Lennox, Michael, Draw smart with Visio 2000 Technical Edition (1999), herein after reference B.

Regarding Claim 20 Ott teaches a computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program for creating a graphical representation of a business process workflow and binding the graphical representation to at least one technological component as discussed above.

Ott does not expressly teach a *binding wizard* for defining at least one technological component, the binding wizard being invoked by dragging the at least one technological component into the second screen area with a user selection device.

Visio teaches displaying (launching, providing, etc.) a binding wizard in response to a user selecting one of a plurality of technological components (e.g. databases, COM objects, ActiveX controls, ODBC, OLE, hyperlinks, Microsoft Access, etc.) in an

analogous are of providing/utilizing a workflow scheduler/modeler graphical user interface for the purposes of assisting the user in binding the selected component to the graphical representation of the business process workflow (reference A: Column 2, Paragraph 2, Page 80; reference B: Column 1, Paragraph 2, Page 46; "Smart drawings", Columns 1-2, Page 48).

More generally Visio teaches a system and method for generating graphical representation of business process workflows wherein the workflows are created using a plurality of schedule/process components which are dragged and dropped from a plurality of menus (tool boxes, libraries, stencils, etc.) onto one or more screens (windows, regions, areas, etc.; reference A: Column 2, Paragraph 2, Page 77; Column 3, Paragraph 2, Page 80; Columns 1-3, Page 82; Figure 80; reference B: Column 2, Paragraphs 1-3, Page 46; "Smart drawings", Columns 1-2, Page 48; "Customization", Columns 1-2, Page 49).

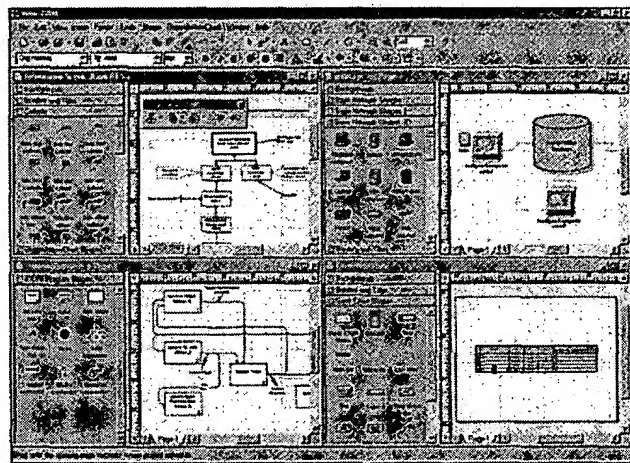


Figure 1: reference A: Figure 80, Visio multi-window graphical user interface

It would have been to one skilled in the art at the time of the invention that the computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program for creating a graphical representation of a business process workflow and binding the graphical representation to at least one technological component as taught by Ott would have benefited from providing (displaying, launching) a binding wizard in view of the teachings of Visio; the resultant computer executable instructions (system/method) assisting users in binding the at least one technological component to the graphical representation of the business process workflow (Visio: reference B: Column 1, Paragraph 2, Page 46; "Smart drawings", Columns 1-2, Page 48).

18. Claims 32 and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable Okita et al., U.S. Patent No. 6225,998 as applied to claims 31, 22 and 35 above.

Regarding Claim 32 Okita et al. teach a computer-readable medium having computer executable instructions for employing a business process scheduling program wherein the deletion of one of the first action grouping component and the second action grouping component created an implementation port (connection point, interface, api, etc.) of the deleted action grouping component (Column 15, Lines 15-68).

Okita et al. does not expressly teach that actions associated with the deletion of a transaction results in the creation of an implementation port of the deleted action on a *separator bar* as claimed however, these differences are only found in the non-functional descriptive material and are not functionally involved in the steps recited nor do they alter the recited structural elements. The recited method steps would be performed the same regardless of the specific location of the deleted port. Further, the structural elements remain the same regardless of the specific location of the deleted port. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, *see In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP 2106.

Regarding Claim 36 Okita et al. teach a computer-readable medium having computer executable instructions for employing a business process scheduling program wherein the transaction component can be nested (compound, sub-flows, sub-workflows, connector objects; groups, sets, etc.; Column 11, Lines 64-68; Column 12, Lines 1-10; Column 16, Lines 1-45).

Okita et al. does not expressly teach limiting the nesting of workflows (components, objects, transactions, etc.) limited to two nesting levels as claimed however, these differences are only found in the non-functional descriptive material and are not functionally involved in the steps recited nor do they alter the recited structural elements. The recited method steps would be performed the same regardless of the number of nested workflows allowed/not-allowed. Further, the structural elements remain the same regardless of the number of nested workflows allowed/not-allowed. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, *see In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP 2106.

Regarding Claim 37 Okita et al. teach a computer-readable medium having computer executable instructions for employing a business process scheduling program wherein the plurality of schedule tool components comprises at least one decision component having at least one rule (Column 10, Lines 55-68; Column 12, Lines 11-36).

Okita et al. does not expressly teach that at least one of the rules for the decision component is *non-editable*.

Official notice is taken that a decision component must have at least one rule as a precondition for being considered a decision component for without at least one rule there would be no logic (rule) upon which to make a decision. Further making at least one of the rules non-editable is an obvious design choice providing a means for insuring that every decision component has at least one rule.

It would have been obvious to one skilled in the art at the time of the invention that the computer-readable medium having computer executable instructions for employing a business process scheduling program as taught by Okita et al. would have benefited from requiring that each decision component have at least one on-editable rule associated with it in view of the teachings of official notice; the resultant computer-readable medium having computer executable instructions ensuring that the decision component contained at least one rule/logic by which to execute its decisions against.

19. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over TeamWARE Group's Teamware Flow as evidenced by at least Teamware Flow 3.1 User's Guide (2000) as applied to claims 39-47 above, and further in view of Visio as evidenced by at least the following:

I. Doherty, Paul, Visio Reshaping Company Thinking (1999), herein after reference A; and

II. Lennox, Michael, Draw smart with Visio 2000 Technical Edition (1999), herein after reference B.

Regarding Claim 48 Teamware teaches a computer-readable medium having computer executable instructions for performing the steps of displaying a screen having a first screen area/region employed to create a graphical representation of a business process workflow and a second screen area/region employed to bind the graphical representation to at least one technological component as discussed above.

Teamware does not expressly teach displaying a *binding wizard* in response to a user selecting one of the plurality of technological components and dragging the component into the (second) screen area using a user selection device as claimed.

Visio teaches displaying (launching, providing, etc.) a binding wizard in response to a user selecting one of a plurality of technological components (e.g. databases, COM objects, ActiveX controls, ODBC, OLE, hyperlinks, Microsoft Access, etc.) in an

analogous are of providing/utilizing a workflow scheduler/modeler graphical user interface for the purposes of assisting the user in binding the selected component to the graphical representation of the business process workflow (reference A: Column 2, Paragraph 2, Page 80; reference B: Column 1, Paragraph 2, Page 46; "Smart drawings", Columns 1-2, Page 48).

It would have been to one skilled in the art at the time of the invention that the computer-readable medium having computer executable instructions for performing the steps of displaying a screen having a first screen area/region employed to create a graphical representation of a business process workflow and a second screen area/region employed to bind the graphical representation to at least one technological component as taught by Teamware would have benefited from providing (displaying, launching) a binding wizard in view of the teachings of Visio; the resultant computer executable instructions (system/method) assisting users in binding the at least one technological component to the graphical representation of the business process workflow (Visio: reference B: Column 1, Paragraph 2, Page 46; "Smart drawings", Columns 1-2, Page 48).

20. Claims 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over TeamWARE Group's Teamware Flow as evidenced by at least Teamware Flow 3.1 User's Guide (2000) as applied to claims 39 and 46 above, and further in view of Ott, Marcus, Conceptual Design and Implementation of a Graphical Workflow-Modeling Editing in the Context of Distributed Groupware-Databases (1994).

Regarding Claim 50 Teamware does not expressly teach displaying an editable port references message properties screen employed to *reorder* implementation ports as claimed.

Ott teaches an editable port references message properties screen employed to reorder implementation ports as part of a computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program further comprises (modeling order constraints, Last Paragraph, Page 87), in an analogous art of business process workflow modeling/graphical presentation generation, for the purposes of defining routing rules/primitives (section 4.2.3 Pages 43-45; Last Paragraph, Page 87).

It would have been obvious to one skilled in the art at the time of the invention that the computer-readable medium having computer executable instructions for generating a graphical representation of a business process workflow and binding the graphical representation to at least one technological component as taught by

Teamware would have benefited from providing an editable port references message properties screen employed to reorder implementation ports in view of the teachings of Ott; the resultant computer-readable medium having computer executable instructions (system/method) for defining routing rules/primitives (Ott: section 4.2.3 Pages 43-45; Last Paragraph, Page 87).

Regarding Claim 51 Teamware does not expressly teach launching (displaying) an editable ports properties screen, the editable port properties screen employed to at least one of the following add, delete or edit port messages or arguments as claimed.

Ott teaches an editable port references message properties screen that is further employed to launch an editable port properties screen, the editable port properties screen being employed to at least one of add, delete or edit port messages or arguments as part of a computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program (conditions, constraints, routing rules, edge conditions, arguments, messages, attributes, etc.; Section 5.3.1, First Paragraph, Page 73; Paragraph 3, Page 75; node/task specification, Pages 129-130; Figures 5-4, 129-130C), in an analogous art of business process workflow modeling for the purposes of defining routing rules/primitives (section 4.2.3 Pages 43-45; Last Paragraph, Page 87).

It would have been obvious to one skilled in the art at the time of the invention that the computer-readable medium having computer executable instructions for generating a graphical representation of a business process workflow and binding the graphical representation to at least one technological component as taught by Teamware would have benefited from providing an editable port references message properties screen employed to employed to at least one of add, delete or edit port messages or arguments in view of the teachings of Ott; the resultant computer-readable medium having computer executable instructions (system/method) enabling users to define routing rules/primitives (Ott: section 4.2.3 Pages 43-45; Last Paragraph, Page 87).

Regarding Claim 52 Teamware teaches a computer-readable medium having computer executable instructions further comprising executing/using the plan (use the plan, Pages 71-72).

Teamware does not expressly teach converting the graphical representation of the business workflow process into executable code as claimed.

Ott teaches converting (transforming, translating, compiling, creating, generating, etc.) the graphical representation of the business workflow process into executable code as part of a computer-readable medium having computer executable instructions for utilizing a workflow scheduler graphical user interface program in an analogous art of

business process scheduling for the purposes of executing/running the workflow (executing, implementing, running the workflow/business process; GroupFlow workflow engine; Section 5.1.1 Basic use of GroupFlow and activation of workflow Instances, Pages 63-64; Paragraph 6, Page 104; Figures 6-8, 7-2).

It would have been obvious to one skilled in the art at the time of the invention that the computer-readable medium having computer executable instructions for generating a graphical representation of a business process workflow and binding the graphical representation to at least one technological component as taught by Teamware would have benefited from converting the graphical representation of the business process workflow into executable code in view of the teachings of Ott; the resultant computer-readable medium having computer executable instructions (system/method) employed to execute the workflow (Ott: Section 5.1.1 Basic use of GroupFlow and activation of workflow Instances, Pages 63-64; Paragraph 6, Page 104).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Bender et al., U.S. Patent No. 5,576,946, teach a system and method for generating and executing a graphical representation of a business process workflow via a graphical user interface wherein the graphical user interface further comprises a component menu (library of icons).

- Flores et al., U.S. Patent No. 5,734,837, teach a system and method for graphically modeling business process workflows via a graphical user interface wherein the system/method verifies (validates, checks, etc.) the correctness of the business process workflow for errors such as deadlocks.

- Berg et al., U.S. Patent No. 5,999,911, teach a system and method for modeling and executing business process workflows via a graphical user interface.

- Marcos et al., U.S. Patent No. 6,262,729, teach a system and method for modeling and executing business process workflows via a graphical user interface that binds workflow components to technological components.

- Chang et al., U.S. Patent No. 6,968,503, teach a graphical user interface system and method for designing and executing workflows.

- Marcos et al., WO 09/47068, teach a system and method for modeling and executing business process workflows via a graphical user interface that binds workflow components to technological components.

- Burnett et al., Visual Object Programming Concepts and Environments (1995) teach the well known use of visual programming systems/methods (e.g. rule editors) for binding business processes to technological components, having a plurality of connection points/ports, via a graphical user interface having at least two screen areas/regions as well as a component menu.

- Koulopoulos, Thomas, The Workflow Imperative (1995) teaches the old and well-known utilization of graphical user interfaces for modeling and executing business process workflows.

- Bekker, Scott, Microsoft Rolls Out a Workflow Toolset (1999) teaches a commercially available system and method for modeling and executing business process workflows via a graphical user interface wherein "A developer uses the workflow designer within Access to design the linear workflow process, which resembles a Visio diagram via a wizard. The tool automatically generates business rules for the workflow process. Scripts are attached to actions displayed in the workflow diagram to automate the action."

- Onoda et al. Definition of Deadlock Patterns for Business Process Workflow Models (1999) teach a method for verifying the correctness of business process workflows in order to detect and correct common workflow errors such as deadlocks.

- Verbeek et al., Diagnosing Workflow Processes using Wolfan (1999) teach a system and method for modeling business process workflows in order to "diagnose" the workflows as part of a verification process in order to identify and correct workflow errors such as deadlocks.

- Wang et al., E-process design and assurance using model checking (2000) teach a system and method for verifying (model checking) business process workflows (e.g. deadlocks).

- Karamanolis et al., Model Checking for Workflow Schemas, teach a system and method for modeling and “checking” (verifying, validating, etc.) business process workflows for workflow errors such as deadlocks.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott L. Jarrett whose telephone number is (571) 272-7033. The examiner can normally be reached on Monday-Friday, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hafiz Tariq can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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7/12/2006


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